

West Sussex County Council

Local Design Guide

Supplementary Guidance for Residential Development Proposals

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1. Introduction

- 1.1 A range of national guidance exists in relation to the design of residential developments, in particular Manual for Streets (MfS), published March 2007 to replace Design Bulletin 32 (DB32) and its companion document; Places, Streets and Movement.
- 1.2 MfS provides national technical guidance for all practitioners involved in the development planning process. The remit of the document primarily relates to lightly trafficked residential streets although there is scope for it to be used in relation to lightly trafficked rural lanes, high streets and other appropriate environments. The document complements national planning policy, notably PPS 3 Housing and PPG 13 Transport, as well as other planning guidance such as PPS 6: Planning for Town Centres and PPG17: Planning for Open Space, Sport and Recreation. The West Sussex document entitled Design Commission – Design Principles also complements MfS.
- 1.3 West Sussex County Council (WSSCC) supports the approach set out in MfS, but believes that clarification is required in some areas to ensure that developers and applicants understand how MfS will be interpreted in West Sussex. MfS says “highway and planning authorities have considerable leeway to develop local policies and standards, and to make technical judgements with regard to how they are applied” (p. 20). Therefore, this supplementary guidance aims to provide advice where required, on how MfS is to be interpreted and applied within West Sussex. This approach is supported by the Local Planning Authorities (LPAs) within the County. The guidance provides points of clarity in the following areas:
- Development Team Approach
 - Masterplanning
 - Visibility
 - Street Layouts and Widths
 - Parking Provision
 - Road Safety Audits and Quality Audits
 - Highway Materials and the Technical Approval Process

2. Development Team Approach

- 2.1 WSSCC will support the Development Team Approach with our involvement predominately promoted through pre-application discussions. WSSCC is not resourced to pursue the Development Team Approach unless the Pre-application Advice Policy is followed.

3. Masterplanning

- 3.1 Any type of Masterplan development should thoroughly consider all the West Sussex Design Commission Design Principles.

3.2 MfS advises that design issues are dealt with in principle at the planning stages.

Considering matters at an early stage can ensure that design proposals are developed in a way that is more likely to be acceptable when schemes are assessed at the technical approval stage, if planning permission is granted. Furthermore, the earlier the Highway Authority involvement within scheme discussions, the greater the possibility comments might help to inform the design process. The scope to influence design choices becomes more limited as a scheme progresses through the planning process.

3.3 Masterplans can be developed at various stages in the planning process and will be required for most major development proposals. The LPAs will usually determine when a Masterplan is required and, in accordance with our Pre-application Advice Policy, WSCC can provide support where Masterplans are progressed as part of the Development Team Approach. The design issues established in Masterplans shall be reflected in the production of Design & Access statements at the planning application stage. The Highway Authority will expect Masterplans to demonstrate, where appropriate, the following either through written and/or illustrative methods:

3.3.1 Outline Masterplans

- development patterns and associated land uses
- site connectivity/ movement frameworks
- transport nodes and key focal points
- access points with existing highway network for all modes
- intentions for private and public areas, including highway adoption proposals

3.3.2 Detailed Masterplans

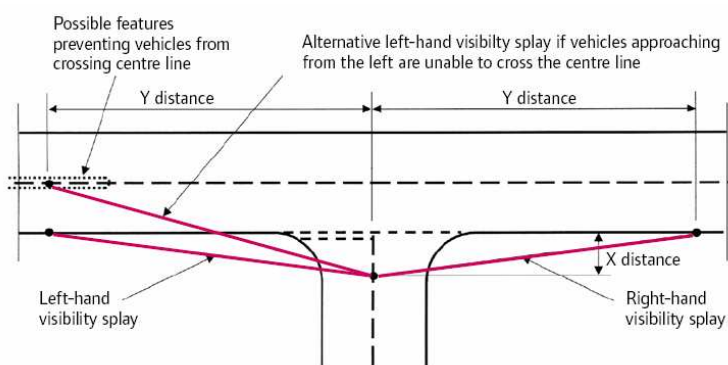
- Movement frameworks to include
 - Networks to integrate new and existing surrounding development
 - Networks must highlight pedestrian, cyclist, other vehicle uses such as cars, emergency and service access and bus routes (with associated priority measures highlighted if proposed). Where appropriate vehicle tracking movements/ swept path analysis are to be provided.
- Street layout details and dimensions, including dropped kerbs, pavements, shared-areas, street furniture etc
- Areas of land to be offered up as highway
- Building lines and relationship with proposed highway boundaries
- Utility routing within highway
- Materials, landscape design and structural planting
- Sustainable drainage systems
- Maintenance management intentions
- Development phasing and construction access
- Street lighting strategy outlining the type and positioning of lighting in relation to the scale and layout of development
- Outline of Traffic Regulation Orders (TROs) to be promoted
- Parking provision in relation to development mixes, including design and controls (e.g. public/ private, communal/ allocated and disabled parking provision) with links to Travel Plan.

- Identification of mitigation proposals linking the Transport Assessment and Travel Planning Publications

4. Visibility

- 4.1 MfS recommends minimum visibility requirements for lightly trafficked streets where 85th percentile speeds do not exceed 37 mph. Consequently WSCC will apply the visibility criteria for residential streets within the county, where speeds are below this threshold.
- 4.2 For non-residential streets (including lightly-trafficked rural lanes) or streets carrying high volumes of traffic, a number of criteria will be considered in determining visibility requirements, these will include speed, character, primary uses and route status.
- 4.3 In the event that MfS visibility recommendations do not apply, then applications will be considered against guidance set out in the Design Manual for Roads and Bridges
- 4.4 Where development requires access onto the existing highway network, where either the speed limit is 40mph and above or where it is believed vehicle speeds exceed the threshold of 37mph, an automatic speed survey to ascertain the 85th percentile speed will be required. Where it is demonstrated that the 85th percentile speed of traffic exceeds 37 mph and that the introduction of mitigations measures will not achieve an adequate reduction in speed, the guidance contained in within MfS will not be applicable.
- 4.5 MfS suggests in relation to parking within visibility splays that “in some circumstances where speeds are low, some encroachment may be acceptable”. Furthermore, MfS also suggests other occasional obstacles within visibility splays that do not “fully obstruct a whole vehicle or a pedestrian, including a child or wheelchair user, will not have a significant impact on road safety” (p.94). WSCC will consider proposals on a scheme by scheme basis to assess road safety considerations.
- 4.6 MfS suggests that in some situations, where “it is unlikely that vehicles approaching from the left on the main arm will cross the centreline of the main arm – opposing flows may be physically segregated at that point, for example. If so, the visibility to the left can be measured to the centre line of the main arm” (p.92). WSCC will consider proposals on a scheme by scheme basis to assess road safety considerations. It is likely that physical segregation will have to include features that physically prevent vehicles from crossing a centreline.
- 4.7 In terms of junctions and accesses, the level of visibility is assessed by measuring ‘X’ and ‘Y’ distances which together provide the visibility splays. The X distance is the distance measured back down an access or junction arm, taken either from the kerb line of an access or the stop line of a junction. The Y distance is the level of forward visibility that that can be achieved and should be at least equal to the minimum stopping site distance adjusted for bonnet length (SSD) as indicated in Table 1 below.

- 4.8 It is important to demonstrate that visibility splays are achieved on either land over which highway status exists or land under the control of the applicant.
- 4.9 An X distance of 2.4m will usually be appropriate in existing built up residential areas. A reduction in the X distance to 2.0m maybe considered in some very lightly trafficked and slow-speeds situations.
- 4.10 If the appropriate MfS or DMRB requirements cannot be achieved but existing visibility can be improved to the benefit of both existing and development traffic a judgement will be made (possibly supported by a Safety Audit) as to whether the development provides a net safety benefit.
- 4.11 Pedestrian visibility is beneficial where a footway is likely to run along the frontage of a development that proposes a new driveway or access, particularly where there is expected to be high levels of pedestrian movement. Ideally therefore, pedestrian visibility splays shall be incorporated by ensuring adjacent site boundaries remain free of obstructions in excess of 0.6 metres in height.
- 4.12 The table below provides a summary of typical visibility requirements for a highway priority junction.



Source: Manual for Streets 2007, fig 7.18a

Speed (mph)	20	25	30	37	43*	53	60
SSD adjusted for bonnet length	25	33	43	59	120	160	215
Source of National Guidance	Manual for Streets				Design Manual for Roads and Bridges		

*Greater than 37mph less than 43mph

Table 1. Typical visibility requirements for a highway priority junction.

5. Street Layouts and Widths

- 5.1 Where appropriate, proposals should demonstrate whether the design of street widths are adequate for the type and flow of traffic they would be expected to accommodate. In order for the Highway Authority to consider the acceptability of such proposals, both preliminary and detailed designs must include vehicle tracking assessments that provide an analysis of the swept paths. Where proposals include layouts that might result in the overrunning of vehicles onto footways, the footway shall be constructed to a full carriageway specification throughout the effected extent.

- 5.2 MfS removes the restriction on the number of units that can be served from a single point of access. The Highway Authority will provide comments on a scheme by scheme basis to assess whether proposals should include suitable provision for secondary/ emergency access.
- 5.3 MfS says, "if an authority or developer wishes to reduce the running carriageway width to below 3.7 m, they should consult the local Fire Safety Officer" (p.75). Where running carriageway widths of less than 3.7m are proposed, scheme layout designs must ensure that, within the area of restriction a minimum width of 3.1m is clear of permanent vertical obstructions to enable fire pump appliances to manoeuvre (e.g. gates, bollards or passage past existing buildings). Such an extent should be limited to direct access but should not form part an operating area for fire appliances.
- 5.4 The requirement for vehicle access for a fire appliance within 45m of every dwelling relates to the distance measured from the fire appliance to the overall dwelling area and not between the fire appliance and the entrance of the dwelling. (Approved Document B (Fire Safety) 2006 Edition) or later updates where applicable. Where Residential Sprinkler Systems are proposed they will be a factor in determining what the reasonable overall level of access should be if increased distances between a fire appliance and a building are required.
- 5.5 A fire appliance should not need to reverse over distances greater than 20m. Therefore on no-through-vehicular routes over this distance, turning facilities should be provided. The design of turning areas can vary dependant on the nature of the scheme layout to accommodate the minimum requirements to be provided for the Fire and Rescue Service. In some instances, where space is limited, turning facilities could be incorporated within the driveway accesses of properties, provided the construction is able to take a load of up to 17 tonnes.
- 5.6 The Highway Authority will provide comments that consider whether development proposals satisfy WSCC Fire and Rescue interests which must accord with Building Regulation requirement B5 (2000). Further discussions between WSCC Fire and Rescue and others, such as the LPA and developers/ applicants may be required in some situations.

6. Parking Provision

- 6.1 MfS advises parking standards be established on a scheme by scheme basis. WSCC parking standards were approved as Supplementary Planning Guidance (SPG) in June 2003. Since then many Local Planning Authorities have chosen to adopt their own parking standards which generally cover and in some cases set a lower level of car parking for residential development. WSCC will continue to use the SPG as a basis for advice provided to the LPAs.
- 6.2 Proposals for cycles must demonstrate that cycle storage is safe, convenient to access and covered. Where garages are provided, they shall be designed to a dimension of 6m x 3m in order to accommodate both a motor vehicle and cycles. Where garages of a smaller size are proposed it must be demonstrated that alternative provision has been made for cycle storage.

7. Road Safety Audits and Quality Audits

- 7.1 Road Safety Audits (RSA) are required for all major planning applications where proposals would; alter existing highway, intensify the use of an existing access, provide a new access onto the highway. Where off site improvements are to be offered for adoption, a RSA would be required unless evidence is provided, and agreed by the Highway Authority, that the proposal would operate safely. In some cases, small scale development may require a RSA. This requirement is determined on the discretion of the highway case officer and is likely to be necessary for proposals that depart significantly from recognised guidance.
- 7.2 Guidance set out in MfS encourages the establishment of a Quality Audit (QA) process. It is envisaged that in time the QA process will cover the issues considered by the current RSA process in the design of residential developments. Until national guidance sets out more detailed procedural advice on the requirements of QAs, where appropriate the Highway Authority will continue to require developments to be supported by RSAs in accordance with the approved policy.

8. Highway Materials and the Technical Approval Process

- 8.1 If a street/road is not to be adopted WSCC will inform residents through the search process.
- 8.2 Where land is expected to be offered for adoption by the County Council as public highway, under the Highways Act 1980 the developer should enter into a Section 38 agreement with the Highway Authority.
- 8.3 Where development requires a change to an existing Highway, under the Highways Act 1980 the developer must enter into a Section 278 agreement with the Highway Authority.
- 8.4 MfS encourages as much detail as possible to be established at the start of the planning process. WSCC will support this approach promoted through the Development Team Approach, resourced through our Pre-application Advice Policy. If the Section 38/278 works are to be pursued prior to the grant of planning permission (undertaken at the risk of the developer), then the appropriate Section 38/278 fee will be required to be paid in full on submission of the Section 38/278 pack.
- 8.5 It must be demonstrated that all construction materials meet WSCC requirements for adoption and should demonstrate the following characteristics.
- Easily maintained materials
 - Locally sourced construction materials where possible
 - Natural materials where possible
 - Sustainable drainage
- 8.6 Commuted sums are required for certain materials and items intended for adoption – please refer to the WSCC Commuted Sums Protocol.

- 8.7 The design of street lighting should be considered from the outset of any scheme. The Highway Authority will need to be satisfied that street lighting to be adopted provides adequate levels of lighting coverage in accordance with WSCC standards.
- 8.8 In situations where it is intended to provide non-standard lighting, controlled variations in design and specification can be adopted provided there is no cost to the County Council. In such situations commuted sums will be required to cover maintenance costs. Commuted sums do not apply in conservation areas.
- 8.9 Any proposals for adoptable street lighting units to be mounted on buildings must be supported by conditions within the purchase details for properties to ensure that the Highway Authority reserve the right to undertake maintenance work when it is required. Furthermore, lighting equipment shall be provided in boxes external to the building with convenient points of access for maintenance work.
- 8.10 WSCC has the ability to design the street lighting aspects of a scheme to standard specification on behalf of developers. The fee for such work is based upon the length of the street/ road.
- 8.11 Street Lighting Electrical Installation Test Certificates shall be provided by developers for all new street lighting equipment covered by Section 38 and 278 Agreements before applications can be made for the Part 2 Certificate for S38/ 278 Completion Certificates. This is required in order to comply with the Electricity at Work Regulations 1989.

Further information on WSCC Development Planning guidance associated with this document can be found at www.westsussex.gov.uk/ccm/navigation/roads-and-transport/development-control/

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Version 1.1 - 09/03/2010 – Correction to Table 1 and paragraph 4.7

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